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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,906	12/08/2006	Matthias Wellhoefer	10191/4094	6010

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EXAMINER

OLSEN, LIN B

ART UNIT	PAPER NUMBER
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3661

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09/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,906	Applicant(s) WELLHOEFER ET AL.	
	Examiner LIN B. OLSEN	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6 and 8-12 is/are pending in the application.
- 4a) Of the above claim(s) 9, 10 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6, 8 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 6 and 8-12 were in the application.

In response to a restriction requirement mailed May 29, 2008, in the response mailed 6/16/2008, the applicant selected claims 6, 8 and 11 without traverse. Claims 9-10 and 12 have been withdrawn from consideration.

Response to Arguments

Applicant's arguments, see Page 4, filed March 28, 2008 with respect to the rejection of claim 6 under 35 U.S.C. § 112 First Paragraph have been fully considered and are persuasive. The Rejection of claim 6 under 112 First Paragraph has been withdrawn.

Applicant's arguments, see Pages 5-8, filed March 28, 2008, with respect to the rejection of claims 6 and 8 under 35 U.S.C. § 102(a) and 103(a) respectively have been fully considered and are persuasive, but only because of the applicant's amendments.

The rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the amendments to the claims.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

On line 12 of paragraph 15, it is suggested that the phrase "also runs on safety module SCAN." should read "also runs on processor μ C".

Appropriate correction is required.

Drawings

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because some of the blocks are not labeled, and as such the drawings do not aid in understanding the invention.

Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Objections

Claim 6 is objected to because of the following informalities: the claim recites “an integrator for integrating the integrated acceleration signal”. The Examiner presumes this means a single integration (to yield velocity) rather than double integration (to yield displacement). Rewording is respectfully requested. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites that “an electronic safety switch that, as a

function of a signal of an acceleration sensor system **releases** an output stage independently of the processor, the processor actuating the output stage”....

“Releases” in this context is ambiguous as it could be read to be an OR input to the output stage rather than the AND input as described in paragraph 15 of the specification. The Examiner suggests that enables may be a more descriptive term.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim **6** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,083,276 to Okano et al. (Okano 1) in view of GE press release “GE Energy introduces new Vibration Transducer” (GE). Okano 1 is concerned with a system for controlling a safety device for a vehicle. The GE sensor provides both acceleration and integrated acceleration (velocity) measurements simultaneously.

Regarding Independent **claim 6**, “A control unit for actuating a passenger protection arrangement, comprising:

a processor; and” – In Okano 1, Figure 1, element 24 is a microcomputer described at col. 3 lines 28-34.

“an electronic safety switch” - embodied in Okano 1 as comparators 50 of Fig. 1 -

“that, as a function of a signal of an acceleration sensor system,” - In Okano 1, the signal is from an acceleration sensor that is then integrated in integrators 22A and

22B. GE provides a transducer that outputs the integrated acceleration signal directly. It would have been obvious to one of ordinary skill in the art at the time of the invention to perform a simple substitution of the GE known element in the known circuit of Okano 1 to obtain predictable results and utilize fewer components thereby saving money.

“releases an output stage independently of the processor,” In Okano 1, the comparators (50) enable the gates (60 61) to act when the outputs of the microcomputer are HIGH. This is the meaning of releases (does not inhibit) based on the specification.

“the processor actuating the output stage as a function of the signal,” In Okano 1, using the GE transducer, Processor (24) receives the signals from the acceleration sensors of GE and analyzes them, producing outputs O_A and O_B to actuates the gates (60, 61).

“wherein the safety switch analyzes an integrated acceleration signal as the signal of the acceleration sensor system, wherein the acceleration sensor system includes an integrator for integrating the integrated acceleration signal.” – Okano 1’s comparators 50 analyze an integrated signal, and the GE transducer outputs an integrated acceleration signal.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okano 1/GE as described above with regard to claim 6 in view of U.S. Patent No. 5,431,441 to Okano (hereafter referred to as Okano 2). Okano 2 is concerned with a system for controlling a safety device for a vehicle.

Regarding **claim 8**, which is dependent on Claim 6, further comprising:

“a high pass filter for filtering the integrated acceleration signal.” - Neither Okano1 nor GE shows filtering the acceleration signal. However, Okano 2 shows in Figs 1 and 4 utilizing a high frequency band pass filter(9) to feed an integrator (10) for making the collision judgment. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the prior art elements of Okano 2 used in a safety device art according to known methods to yield improved collision detection.

Claim **11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Okano 1/GE as described above with regard to claim 6 in view of U.S. Patent No. 5,351,185 to Takeuchi et al (Takenuchi). Takenuchi is concerned with a system for controlling a safety device for a vehicle that checks for malfunction of the unit.

Regarding **claim 11**, which is dependent on Claim 6, “wherein the safety switch executes watchdog functions for the processor.” – Neither Okano 1 nor GE mentions a watchdog timer. However, Takenuchi at col. 1 lines 33-35 relates that it is well known that a control system of the safety device type requires various kinds of failure judgments. Further Takenuchi shows how a watchdog would be connected to the microprocessor. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the known watchdog techniques to improve the Okano 1 device in the same way Takenuchi works.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LIN B. OLSEN whose telephone number is (571)272-9754. The examiner can normally be reached on Mon - Fri, 8:30 -5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lin B Olsen/
Examiner, Art Unit 3661

/Thomas G. Black/

Supervisory Patent Examiner, Art Unit 3661